



Floating Classroom for Compassvale

12 July 2019

How does climate change affect the ocean? That is what students from the Compassvale Secondary School learnt when they attended a Floating Classroom on board Discovery Yacht The Admiral at the Marina at Keppel Bay.

Ms Sam Shu Qin and Mr. Lionel Ng, researchers from the Tropical Marine Science Institute (TMSI), National University of Singapore spoke about how the ocean is being impacted by climate change caused by increased greenhouse gasses from human activities. This causes changes in water temperature, ocean acidification and deoxygenation, leading to changes in oceanic circulation and chemistry, rising sea levels, increased storm intensity. Thus, affecting the diversity and abundance of marine species.

The students learnt that the stony structures of hard corals are composed of calcium carbonate. In order to create this material, corals rely on a specific pH balance to extract calcium from the seawater. Ocean acidification will have a negative impact on the ability of corals to develop, and on their ability to recover from damage.

To demonstrate this, through a simulation exercise, the students got to see how coral bleaching happens and what is the effect of a change in the ocean's chemistry on corals.

Important messages were shared that day but not without ending on a positive note- with some tips on what they can do to help the situation and a tour of the Marina at Keppel Bay's City Reef , to observe the flourishing corals.

Special Thanks to our Programme Partners:

Expedition Gallery

Compassvale Secondary School: <https://compassvalesec.moe.edu.sg/>

Marina at Keppel Bay: <http://www.marinkeppelbay.com/about-us/>

Tropical Marine Science Institute (TMSI) , National University Of Singapore: www.tmsi.nus.edu.sg

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